

MMI 291 Seminar Series

Current Theme: Interdisciplinary Research
Spring Quarter 2025 – CRN 47397

Friday Seminar at 12:10-1 p.m.

Genome and Biomedical Sciences Facility, Room 1005

“Challenges developing rapid diagnostic tests for infectious diseases”

Research Bio

David AuCoin is a Professor and Chair of the Department of Microbiology and Immunology at the University of Nevada, Reno School of Medicine (UNR MED). His primary research focus is to develop antibody based diagnostics and therapeutics for neglected tropical diseases and biothreat pathogens. He is also the co-founder and Chief Scientific Officer of DxDiscovery (2012), a UNR MED “startup” focused on translating diagnostic research into FDA approved products.

The AuCoin laboratory utilizes a number of techniques to identify diagnostic biomarkers that are secreted during infection by *Burkholderia pseudomallei* (melioidosis) *Aspergillus fumigatus* (invasive aspergillosis), *Francisella tularensis* (tularemia), *Borrelia burgdorferi* (Lyme disease) and other pathogens. AuCoin received a B.S. from the University of Massachusetts at Amherst (1993) followed by a M.S. (1999) and Ph.D. in Cell and Molecular Biology from the University of Nevada (2002). AuCoin completed a postdoctoral fellowship at Stanford University (2005).

Publications

Hannah, E.E.; Pandit, S.G.; Hau, D.; DeMers, H.L.; Robichaux, K.; Nualnoi, T.; Dissanayaka, A.; Arias-Umana, J.; Green, H.R.; Thorkildson, P.; **AuCoin, D.**; et al. “Development of Immunoassays for Detection of *Francisella tularensis* Lipopolysaccharide in Tularemia Patient Samples”. *Pathogens* 2021, 10, 924. <https://doi.org/10.3390/pathogens10080924>.

Hannah, E.E.; Pandit, S.G.; Hau, D.; DeMers, H.L.; Robichaux, K.; Nualnoi, T.; Dissanayaka, A.; Arias-Umana, J.; Green, H.R.; Thorkildson, P.; **AuCoin, D.**; et al. “Development of Immunoassays for Detection of *Francisella tularensis* Lipopolysaccharide in Tularemia Patient Samples”. *Pathogens* 2021, 10, 924. <https://doi.org/10.3390/pathogens10080924>.

Hau D, Wade B, Lovejoy C, Pandit SG, Reed DE, DeMers HL, **AuCoin, D**, et al. (2022) “Development of a dual antigen lateral flow immunoassay for detecting *Yersinia pestis*”. *PLoS Negl Trop Dis* 16(3): e0010287. <https://doi.org/10.1371/journal.pntd.0010287>.

May
16



David AuCoin, Ph.D.
Professor and Chair
Department of Microbiology
and Immunology
University of Nevada, Reno

May 16, 2025
12:10 – 1 p.m.

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Genome and
Biomedical Sciences
Facility, Room 1005

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In-person presentation

Medical Microbiology and
Immunology
School of Medicine

Seminar Contact:
Lena Doan
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We hope to see you there!